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CLAIM AMENDMENTS

Claims 1 to 23 (canceled).

- 24. (previously presented) An operating method for a
 2 packaging machine of the "sleeve" type, which wraps sheets of
 3 packaging material around objects, in which the said machine
 4 comprises:
- a first object conveyor for feeding the objects
 longitudinally in a spaced sequence;
- a second object conveyor, located downstream of and at a
 short distance from said first object conveyor thus forming a first
 opening between said first and said second object conveyors for
 receiving objects arriving from said first object conveyor and for
 transporting said objects along a wrapping plane which has an entry
 end and an exit end;
- a third object conveyor located downstream of and at a

 short distance from said second object conveyor and forming

 therewith a second opening between the second and said third object

 conveyors for receiving the objects arriving from said second

 object conveyor;

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a sheet wrapper, located in proximity to said second
object conveyor and comprising at least one suspended wrapping bar
which is oriented transversely with respect to a direction of
advance of the objects and adapted to move through said first and
said second openings along an orbital path which circumscribes the
top of the said second object conveyor, and can transport said
sheets;

a sheet conveyor having a conveyor belt, positioned underneath and aligned with said first opening, for feeding the sheets into said first opening (Al); and

sheet wrapper with each other, said method comprising the steps of

moving on said conveyor belt and toward said first

opening a sheet having a configuration that comprises at least a

portion of accumulation of packaging material in which the packing

material is accumulated along a segment of said conveyor belt and

with at least one crest, and

a synchronizer for synchronizing said sheet wrapper with each other, said synchronization causing an accumulated portion to form on said conveyor belt, said accumulated portion of material being of the undulating type with at least two crests:

- moving on said conveyor belt and toward said first
- opening at least a portion of accumulation of packaging material;
- 41 and
- moving the wrapping bar upward through said first opening
- when said portion of accumulation of packaging material is disposed
- 44 in proximity of said first opening.
- 25. (previously presented) The operating method defined
- in claim 24 wherein the sheet disposed on said conveyor belt has a
- s configuration comprising a first portion in which the packaging
- a material is spread out on said conveyor belt and wherein said first
- portion is positioned downstream with respect to said portion of .
- accumulation.
- 26. (previously presented) The operating method defined
- in claim 25, further comprising the step of:
- forming on said conveyor belt said portion of
- accumulation in which the packaging material is disposed
- s accumulated on and along a segment of said conveyor belt.
 - 27. (previously presented) The operating method defined

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- in claim 26 wherein the sheet disposed on said conveyor belt has a
- configuration comprising a further third portion in which the
- 4 packaging material is spread out on said conveyor belt and wherein
- s said third portion is positioned upstream with respect to said
- 6 portion of accumulation.
- 28. (previously presented) The operating method defined
- in claim 27 wherein the said configuration of the sheet having an
- accumulated portion of material is of the undulating type with a
- 4 single crest.

Claim 29 (cancelled).

- 30. (previously presented) The operating method defined
- 7 in claim 27 wherein the said configuration of the sheet having an
- accumulated portion of material is of the gathered type.
- 1 31. (previously presented) The operating method defined
- in claim 24 wherein a phase relationship is provided between the
- said sheet conveyor and said sheet wrapper in which, when the
- initial part of the said accumulated portion of material reaches

- s the proximity of the said first opening, the wrapping bar passes
- through the said first aperture to initiate a phase of conveying
- 7 the sheet.
- 32. (previously presented) The operating method defined
- in claim 24 wherein the first, second and third conveyors are
- driven at constant speed in order to transport the objects with a
- 4 constant motion from the entry to the exit end, and wherein the
- s sheet wrapper and/or the sheet conveyor are driven at variable
- speed in order to produce phase relationships for the execution of
- 7 the wrapping operations.
- 33. (previously presented) The operating method defined
- in claim 24, in which the objects are advanced in individual
- succession from an upstream side toward downstream side and in
- 4 which for each object to be packaged the following steps are
- 5 provided:
- moving on said conveyor belt (51) and toward said first
- 7 opening a sheet having a configuration that comprises at least a
- portion of accumulation of packaging material in which the packing
- material is accumulated along a segment of said conveyor belt;

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supplying a front portion of the of the sheet towards an
entry end of the said second object conveyor in phase with the
arrival of the object on the object second conveyor, the said front
portion of the sheet being disposed between the object and a
transport surface of the second object conveyor;

moving the wrapping bar upward through said first opening, when the rear end of the object has passed beyond the said first opening and when the portion of accumulation of packaging material is in proximity of said first opening;

moving the wrapping bar along the orbital path above the object and in the downstream direction drawing said accumulated portion supplied toward said first aperture by said conveyor belt;

moving the wrapping bar beyond the object and then downwards through said second opening before the object reaches the second aperture itself, dangling a terminal part of the piece of the sheet between the said second conveyor and the said third conveyor means; and

moving the object from the second conveyor means to the
third conveyor and placing the terminal part of the sheet beneath
the object.

- in claim 24 wherein said machine additionally comprises a sheet
 feeder, located upstream of said sheet conveyor, for feeding sheets
 of packaging material towards and onto the conveyor belt of the
 sheet conveyor, wherein the accumulated portion of material
 provided for the sheet is formed on the conveyor belt (51) by using
 for the said sheet feeder feeding speed for the sheets greater than
 a conveying speed of the conveyor belt of the sheet conveyor means.
- 35. (Previously presented) The operating method defined 1 in claim 34 wherein the configuration of the sheet having an 2 accumulated portion of material is of the undulating type with a single crest and is produced by means of the following phases: a first phase in which the speed of feeding the sheet 5 imparted by the sheet feeder is equal to a transport speed of the belt imparted by the sheet conveyor means, thus producing on the 7 conveyor belt a first portion which is spread out; a second phase in which a transport motion of the conveyor belt of the sheet conveyor is temporarily stopped, while a 10 motion for feeding the sheet of the sheet feeder is maintained, 11

- thus producing a second, undulating accumulated portion of
- material, and
- a third phase in which the speed of feeding the sheet
- imparted by the sheet feeder is equal to the transport speed of the
- belt imparted by the sheet conveyor means, thus producing on the
- conveyor belt a third portion which is spread out.
- 36. (Previously presented) The operating method defined
- in claim 35 wherein the configuration of the sheet having an
- accumulated portion of material of the undulating type with at
- least two crests is produced by reflecting the second and third
- 5 phases one or more times.
- 37. (Previously presented) The operating method defined
- in claim 34 wherein the configuration of the sheet having an
- accumulated portion of material of the undulating type with at
- least one crest is produced by means of the following phases:
- a first phase in which the speed of feeding the sheet
- imparted by the sheet feeder is equal to a transport speed of the
- belt imparted by the sheet conveyor, thus producing on the conveyor
- belt a first portion which is spread out;

- imparted by the sheet feeder is greater than the transport speed of
 the belt imparted by the sheet conveyor, thus producing on the
 conveyor belt a second, accumulated portion of material which is
 undulating with a crest, and
 a third phase in which the speed of feeding the sheet
 imparted by the sheet feeder is equal to the transport speed of the
- imparted by the sheet feeder is equal to the transport speed of the belt imparted by the sheet conveyor, thus producing on the conveyor belt a third portion which is spread out.
- 38. (previously presented) The operating method defined
 in claim 37 wherein the configuration of the sheet having an
 accumulated portion of material of the undulating type with two or
 more crests is produced by repeating the second and third phases.
- 39. (previously presented) The operating method defined in claim 34 wherein the configuration of the sheet having an accumulated portion of material of the gathered type is produced by means of the following phases:
- a first phase in which the speed of feeding the sheet
 imparted by the sheet feeder is equal to the transport speed of the

- belt imparted by the sheet conveyor, thus producing on the conveyor
- belt a first portion which is spread out; and
- a second phase in which the speed of feeding the sheet
- imparted by the sheet feeder is greater than the transport speed of
- the belt imparted by the sheet conveyor, thus producing on the
- conveyor belt (51) a second, accumulated portion of material which
- is gathered.
- 1 40. (previously presented) The operating method defined
- in claim 34 wherein the said sheet feeder is provided with a cutter
- and the said sheet feeder initially feeds towards the said conveyor
- 4 belt the front portion of a continuous strip after which the said
- continuous strip is cut by said cutter in order to produce the
- s sheet.
- 1 41. (previously presented) The operating method defined
- 2 in claim 34 wherein the sheet feeder is driven with a constant
- motion and the sheet conveyor is driven with a variable motion.
- 1 42. (Previously presented) The operating method defined
- in claim 34 wherein an angle of incidence between a plane in which

- the sheets are fed and a plane in which the sheets are conveyed is
- varied in order to obtain the desired configuration of the
- s accumulated portion of the sheet.
- 43. (Currently amended) A packaging machine comprising:
- a first object conveyor for feeding the objects
- s longitudinally in a spaced sequence;
- a second object conveyor, located downstream of and at a
- s short distance from said first object conveyor thus forming a first
- opening between said first and said second object conveyors for
- receiving objects arriving from said first object conveyor and for
- s transporting said objects along a wrapping plane which has an entry
- end and an exit end;
- a third object conveyor located downstream of and at a
- short distance from said second object conveyor and forming
- therewith a second opening between the second and said third object
- conveyors for receiving the objects arriving from said second
- object conveyor;
- a sheet wrapper, located in proximity to said second
- object conveyor and comprising at least one suspended wrapping bar

sheets

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- which is oriented transversely with respect to a direction of
 advance of the objects and adapted to move through said first and
 said second openings along an orbital path which circumscribes the
 top of the said second object conveyor, and can transport said
- 23 a sheet conveyor having a conveyor belt, positioned
 24 underneath and aligned with said first opening, for feeding the
 25 sheets into said first opening (Al); and
- a synchronizer for synchronizing said conveyor and said
 sheet wrapper with each other,
- 28 <u>said synchronization causing an accumulated portion to</u>
 29 <u>form on said conveyor belt, said accumulated portion of material</u>
 30 <u>being of the undulating type with at least two crests</u>
- said first, second and third object conveyors being
 driven by a first servo motor connected to said synchronizing;
- said sheet wrapper being driven by a second servo motor

 connected to the said synchronizer;
- said sheet conveyor being driven by a third servo motor

 connected to said synchronizer and transporting towards the said

 first opening said sheet of wrapping material having an accumulated

 portion of material; and

- said synchronizer comprising a programmable control unit
 which controls the said first, second and third servo motors in
 such a way that the said wrapping bar picks up the said accumulated
 portion of material in the proximity of the said first opening and
 then conveys the sheet around the object.
- 44. (Previously presented) The packaging machine defined in claim 43 wherein said conveyor belt of the sheet conveyor is of the suction type.
- 45. (Previously presented) The packaging machine defined in claim 44 wherein said machine additionally comprises a sheet feeder; located upstream of said sheet conveyor, for feeding sheets of packaging material towards and on the conveyor belt of the sheet conveyor, said sheet feeder being driven by a fourth servo motor connected to said synchronizer; said programmable control unit controlling the fourth servo motor; and in order to produce the accumulated portion of material, said programmable control unit controls the speed of the said third servo motor and of the said fourth servo motor in such a way that the transport speed of the conveyor belt of the sheet conveyor is lower than the sheet feeding

- speed of the sheet feeder.
- 1 46. (Previously presented) The packaging machine
- according to claim 43 wherein said sheet feeder additionally
- comprises a cutter for cutting a continuous strip of packaging
- material in order to produce the sheets, said cutter being driven
- by a servo control unit and controlled by the synchronizer.
- 47. (Previously presented) The packaging machine
- according to claim 43 wherein said sheet feeder is oscillatable
- angularly about an axis lying parallel to a plane of transport of
- the sheets formed by the conveyor belt, to make it possible to
- s adjust an angle of incidence between a plane in which the sheets
- are fed and a plane in which the sheets are conveyed.
- 1 48. (Previously presented) The packaging machine
- according to claim 43 wherein an outer casing is provided to
- enclose operating elements said sheet feeder in order to avoid
- 4 contact between the material forming the accumulated portion and
- the said operating elements.